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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-34 (Cancelled)

Claim 35 (Previously Presented) A transmission apparatus, connected to a first apparatus which is for transmitting a plurality of optical signals each having a different optical frequency and further connected to a plurality of apparatuses for receiving optical signals, said transmission apparatus for receiving said plurality of optical signals from said first apparatus and converting an optical frequency of at least one optical signal of said plurality of optical signals and transmitting said optical signal of said optical frequency converted to at least one apparatus of said plurality of apparatuses, comprising:

an optical frequency selection unit for selecting an optical signal of a first optical frequency corresponding to a second apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus;
and

an optical frequency conversion unit for converting said first optical frequency to a second optical frequency allotted to said second apparatus.

Claim 36 (Previously Presented) A transmission apparatus according to Claim 35, wherein said optical frequency selection unit selects an optical signal of a

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third optical frequency corresponding to a third apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus, and said optical frequency conversion unit converts said third optical frequency to said second optical frequency allotted to said second and third apparatuses.

Claim 37 (Previously Presented) A transmission apparatus according to Claim 35, comprising a wavelength demultiplexer for demultiplexing said plurality of optical signals which are transmitted in a multiplexed manner on an optical transmission line connecting said first apparatus and said transmission apparatus.

Claim 38 (Previously Presented) A transmission apparatus according to Claim 36, comprising a wavelength multiplexer for multiplexing a plurality of optical signals each having said second optical frequency.

Claim 39 (Previously Presented) A transmission apparatus according to Claim 35, comprising a control unit for allotting said second frequency to said second apparatus and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second apparatus.

Claim 40 (Previously Presented) A transmission apparatus according to Claim 39, wherein said control unit is notified from said first apparatus that said first optical frequency corresponds to said second apparatus, and said control unit indicates to said optical frequency selection unit that said first optical frequency corresponds to said second apparatus.

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Claim 41 (Previously Presented) A transmission apparatus according to Claim 36, comprising a control unit for allotting said second frequency to said second and third apparatuses and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second and third apparatuses.

Claim 42 (Previously Presented) A transmission apparatus connected to a plurality of apparatuses for transmitting optical signals and a first apparatus for receiving optical signals transmitted from said plurality of apparatuses, for converting an optical frequency of an optical signal received from at least one of said plurality of apparatuses and transmitting said optical signal of said optical frequency converted to said first apparatus, comprising:

a control unit for allotting a first optical frequency to an optical signal to be transmitted from a second apparatus among said plurality of apparatuses; and
an optical frequency conversion unit for converting said first optical frequency of said optical signal transmitted from said second apparatus to a second optical frequency corresponding to said second apparatus.

Claim 43 (Previously Presented) A transmission apparatus according to Claim 42, wherein said control unit allots said first optical frequency to each of optical signals to be transmitted from said second apparatus and a third apparatus among said plurality of apparatuses, and said optical frequency conversion unit

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converts said first optical frequency of an optical signal transmitted from said third apparatus to a third optical frequency corresponding to said third apparatus.

Claim 44 (Previously Presented) A transmission apparatus according to Claim 42, comprising a wavelength multiplexer for multiplexing said optical signal of said second optical frequency and said optical signal of said third optical frequency.

Claim 45 (Previously Presented) A transmission apparatus according to Claim 42, wherein said control unit is notified from said first apparatus that said second optical frequency corresponds to said second apparatus.

Claim 46 (Previously Presented) A transmission apparatus, when a plurality of optical signals each having a different optical frequency transmitted from a first apparatus are relayed to a plurality of apparatuses, for converting an optical frequency of at least one of said plurality of optical signals and transmitting said at least one optical signal having an optical frequency converted to at least one of said plurality of apparatuses, comprising:

an optical frequency selection unit for selecting an optical signal of a first optical frequency corresponding to a second apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus;
and

an optical frequency conversion unit for converting said first optical frequency to a second optical frequency allotted to said second apparatus.

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Claim 47 (Previously Presented) A transmission apparatus according to Claim 46, wherein said optical frequency selection unit selects an optical signal of a third optical frequency corresponding to a third apparatus among said plurality of apparatuses from said plurality of optical signals received from said first apparatus, and said optical frequency conversion unit converts said third optical frequency to said second optical frequency allotted to said second and third apparatuses.

Claim 48 (Previously Presented) A transmission apparatus according to Claim 46, comprising a wavelength demultiplexer for demultiplexing said plurality of optical signals which are transmitted in a multiplexed manner on an optical transmission line connecting said first apparatus and said transmission apparatus.

Claim 49 (Previously Presented) A transmission apparatus according to Claim 47, comprising a wavelength multiplexer for multiplexing a plurality of optical signals each having said second optical frequency.

Claim 50 (Previously Presented) A transmission apparatus according to Claim 46, comprising a control unit for allotting said second frequency to said second apparatus and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second apparatus.

Claim 51 (Previously Presented) A transmission apparatus according to Claim 50, wherein said control unit is notified from said first apparatus that said first optical frequency corresponds to said second apparatus, and said control unit

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indicates to said optical frequency selection unit that said first optical frequency corresponds to said second apparatus.

Claim 52 (Previously Presented) A transmission apparatus according to Claim 47, comprising a control unit for allotting said second frequency to said second and third apparatuses and indicating to said optical frequency conversion unit that said second optical frequency is allotted to said second and third apparatuses.

Claim 53 (New) A transmission apparatus connected to an optical signal transmission line, first network and second network, comprising:

an optical frequency selection unit for selecting a first optical signal of a first optical frequency and a second optical signal of a second optical frequency among an optical frequency division multiplexed signal received from said optical signal transmission line and transmitting said selected first and second optical signals separately,

a first optical frequency conversion unit connected to said optical frequency selection unit and said first network for converting a frequency of said first optical signal from said first optical frequency to a third optical frequency and transmitting an optical signal of said third optical frequency toward said first network,

a second optical frequency conversion unit connected to said optical frequency selection unit and said second network for converting a frequency of said second optical signal from said second optical frequency to said third optical

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frequency and transmitting an optical signal of said third optical frequency toward said second network,

wherein said first optical frequency is allotted for transmissions of signals from said optical transmission line to said first network,

said second optical frequency is allotted for transmissions of signals from said optical transmission line to said second network, and

said third optical frequency is allotted for transmissions of signals from said transmission apparatus to said first and second networks.

Claim 54 (New) A transmission apparatus according to Claim 53, comprising a control unit for instructing said optical frequency selection unit to transmit said first optical signal to said first optical frequency conversion unit and to transmit said second optical signal to said second optical frequency conversion unit.

Claim 55 (New) A transmission apparatus according to Claim 54, wherein said control unit is notified via said optical transmission line that said first optical frequency corresponds to said first network and that said second optical frequency corresponds to said second network.

Claim 56 (New) A transmission apparatus according to Claim 53, comprising a control unit for indicating said first and second optical frequency conversion unit to convert a frequency of input optical signal to said third frequency that is allotted to said first apparatus and second apparatus.

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Claim 57 (New) A transmission apparatus according to Claim 53, wherein
said optical frequency selection unit comprising:

a demultiplexer for demultiplexing said optical frequency division multiplexed
signal and transmitting said first optical signal and said second optical signal
separately, and

an optical space switch connected to said demultiplexer for guiding said first
optical signal and said second optical signal to said first optical frequency conversion
unit and to said second optical frequency conversion unit respectively based upon
instructions of said controller.

Claim 58 (New) A transmission apparatus according to Claim 53, further
connected to the other optical transmission line and further comprising:

a third optical frequency conversion unit connected to said first network for
receiving a third optical signal of fourth optical frequency from said first network and
converting a frequency of said third optical signal from said fourth optical frequency
to a fifth optical frequency and transmitting said converted third optical signal toward
said other optical transmission line,

a fourth optical frequency conversion unit connected to said second network
for receiving a fourth optical signal of fourth optical frequency from said second
network and converting a frequency of said fourth optical signal from said fourth
optical frequency to a sixth optical frequency and transmitting said converted fourth
optical signal toward said other optical transmission line, wherein

said fourth optical frequency is allotted for transmissions of signals from said
first and second networks to said transmission apparatus,

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said fifth optical frequency is allotted for transmissions of signals from said first network to said other optical transmission line,

said sixth optical frequency is allotted for transmissions of signals from said second network to said other optical transmission line.

Claim 59 (New) A transmission apparatus connected to an optical signal transmission line and further connected to first and second networks, comprising:

an optical divider for dividing an optical frequency division multiplexed signal received from said optical signal transmission line into a first optical frequency division multiplexed signal and a second optical frequency division multiplexed signal,

a first optical frequency selection unit receiving said first optical frequency division multiplexed signal for selecting a first optical signal of a first optical frequency among said first optical frequency division multiplexed signal and transmitting said selected first optical signal,

a second optical frequency selection unit receiving said second optical frequency division multiplexed signal for selecting a second optical signal of a second optical frequency among said second optical frequency division multiplexed signal and transmitting said selected second optical signal,

a first optical frequency conversion unit connected to said first optical frequency selection unit and said first network for converting a frequency of said first optical signal from said first optical frequency to a third optical frequency and transmitting an optical signal of said third optical frequency toward said first network, and

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a second optical frequency conversion unit connected to said second optical frequency selection unit and said second network for converting a frequency of said second optical signal from said second optical frequency to said third optical frequency and transmitting an optical signal of said third optical frequency toward said second network.

Claim 60 (New) A transmission apparatus according to Claim 59, wherein said first optical frequency is allotted for transmissions of signals from said optical transmission line to said first network,

said second optical frequency is allotted for transmissions of signals from said optical transmission line to said second network, and

said third optical frequency is allotted for transmissions of signals from said transmission apparatus to said first and second networks.

Claim 61 (New) A transmission apparatus according to Claim 59, comprising a control unit for indicating said first and second optical frequency conversion unit to convert a frequency of input optical signal to said third frequency that is allotted to said first apparatus and second apparatus.

Claim 62 (New) A transmission apparatus according to Claim 59, further connected to the other optical transmission line and further comprising:

a third optical frequency conversion unit connected to said first network for receiving a third optical signal of fourth optical frequency from said first network and converting a frequency of said third optical signal from said fourth optical frequency

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to a fifth optical frequency and transmitting said converted third optical signal toward said other optical transmission line,

a fourth optical frequency conversion unit connected to said second network for receiving a fourth optical signal of fourth optical frequency from said second network and converting a frequency of said fourth optical signal from said fourth optical frequency to a sixth optical frequency and transmitting said converted fourth optical signal toward said other optical transmission line, wherein

said fourth optical frequency is allotted for transmissions of signals from said first and second networks to said transmission apparatus,

said fifth optical frequency is allotted for transmissions of signals from said first network to said other optical transmission line,

said sixth optical frequency is allotted for transmissions of signals from said second network to said other optical transmission line.